(Ang-2), related to HCC development and diagnostic values in patients with liver diseases.
Methods: The expression of circulating Ang-2 and VEGF was analyzed by ELISA and explored their relationship.
Results: The progressing increasing of circulating Ang-2 expression from normal subjects (17.4±2.6 ng/mL) to acute hepatitis (23.5±6.5 ng/mL) to chronic hepatitis (20.9±7.1 ng/mL) to liver cirrhosis (25.5±5.8 ng/mL) and HCC (40.8±3.5 ng/mL). Significant differences was found between HCC patients and other liver diseases or control subjects ($P < 0.001$) and closely positive relationship between Ang-2 and VEGF ($r = 0.769$, $P = 0.026$). If cutoff value of serum Ang-2 expression was more than 35 ng/mL, higher incidence was found in 95% of HCC patients and lower expression in other liver diseases except of one case with cirrhosis. Combined serum Ang-2 and AFP analysis should be useful markers for HCC diagnosis.
Conclusions: Ang-2 overexpression is associated with HCC development and should be useful biomarker for HCC diagnosis or differential diagnosis.

PP-056 Isolation and culturing of anaerobic fungi from rumen fluid of sheep in Iran

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Background: Anaerobic fungi are now known to be one of the most significant groups of rumen microorganisms. These fungi are found within the digestive tract of domesticated ruminants. All species of gut fungi described to date are obligate anaerobes. The aim of this study was to isolate anaerobic fungi from rumen fluid of sheep and culturing them on anaerobic media.
Methods: Ten sheep, each fitted with rumen fistula, were used in this study. Rumen liquor samples were collected from the sheep in to a vacuum flask and returned to the laboratory within 2 h of collection and then inoculated on serum bottles containing 45 ml of culture medium which was based on that of Orpin.
The culture media were incubated in anaerobic jars at 39°C for 3 days under oxygen-free CO_2.
Results: The presence of motile zoospores in the samples was determined microscopically. The isolated fungi were identified morphologically based on the criteria described by Ho and Barr using a phase contrast microscope.
Conclusion: Rumen fungi are able to degrade and utilize plant storage and structural polysaccharides by producing a wide range of enzymes.

PP-057 Toxic effects of changes in medium molecular weight molecules contents in pregnant women amniotic fluid with hard inborn defects of fetal development at different terms of gestation

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Medium molecular weight molecules (MMWM) act as secondary factors of endogenic intoxication and are used as its markers. They can inhibit lactate dehydrogenase, adenylate cyclase, pyruvate dehydrogenase, transketolase isoforms activities, causing metabolic pathways disturbances. Aim of this study was to investigate changes in amniotic fluid (AF) MMWM contents of pregnant women with hard inborn defects of fetal development and their adverse effects on futher development and health status.
Amniotic fluids from 45 women (age 18–35 years old, 5 women with antibodies to herpes virus and cytomegalo virus) were obtained via trans abdominal amniocentesis at general prescriptions. MMWM contents were studied by Babel screening method (Babel A, 1974). Among fetal BBP dominated defects of central nervous system, kidney, skeleton and abdominal wall. Statistic analysis of results demonstrated that parameters of total MMWM fraction in AF during gestation were increased (statistically significant changes) to 30% at 16–20 weeks period, to 48% at 21–24 weeks period, to 50% at 25–28 weeks period. During last of these periods in fetus take place development of cerebellum. Thus such changes of total MMWM fraction could cause structural changes in brain structures. It could be supposed that higher level of total MMWM fraction at 25–28 weeks period which coincided with brain development was connected with neurotoxic action of MMWM as abnormalities of central nervous system prevailed among studied inborn defects. Central nervous system cells damage in future could cause to disbalance of neurohumoral regulation and homeostatic processes. It could not be excluded that such increasing of MMWM was the result of metabolic processes discoordination and genetic programme modification or defects in catabolites elimination processes as it was previously demonstrated for medium weight toxins participation in kidney failure development.

PP-058 Medium molecular weight molecules contents in pregnant women amniotic fluid at different terms of gestation as markers of intoxication

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Medium molecular weight molecules (MMWM) or medium moilecules are known as important universal markers of intoxication. Main part of them is represented by polypeptides with molecular weights 300–5000 D. It was shown that these peptides not only caused endogenic intoxication syndrome, but also disfunctions of hematoencephalic barrier, micro circulation processes, mitochondrial oxidation, amino acids, Na^+ and K^+ transport through membranes, inhibited immune reactions of organism. Aim of this study was to investigate changes in amniotic fluid (AF) MMWM contents of pregnant women with normal fetal development at different terms of gestation.
Amniotic fluids from 50 women (age 18–35 years old) were obtained via trans abdominal amniocentesis at general prescriptions. MMWM contents were studied by Babel screening method (Babel A, 1974). Statistic analysis of results demonstrated that parameters of total MMWM fraction in AF during gestation remained stable. In case of pregnant women separation on four weekly cycles – changes were not statistically significant for first 12 weeks and then for 16–20, 21–24, 25–28 weeks periods. Thus it can be supposed that such changes of total MMWM fraction were caused by adequate formation of metabolic pathways between mother and fetus via coordination of biochemical processes. Their extended investigation could be necessary for adequate investigation of total MMWM fraction with different inborn pathologies caused by infections.

PP-059 Serum procalcitonin as a reliable index of systemic inflammatory response syndrome (SIRS)

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Introduction: SIRS results either from a severe infection (sepsis) or from non-infectious causes. In both instances